Honeywell

W8735B
Telephone Access Module

APPLICATION

The W8735B Telephone Access Module provides remote telephone access to an HVAC system when used with a T8635L Microelectronic Communicating Programmable Thermostat and a W8635A or W8635B Equipment Interface Module. The W8735B can be used with conventional or heat pump applications. The W8735B can provide remote access of up to nine zones when used with the W8703A Damper Interface Module(s). See Table 1.

When used with the C7835A Discharge Temperature Sensor, additional HVAC diagnostics are available. See Table 5. The W8735B uses the Enviracom™ Network, a low cost, wired communications protocol.

Table 1. W8735B Description.

Model	Application	Terminals	Comments
W8735B	Remote dial-in and remote dial-out using a conventional telephone line.	1, 2, 3, Aux1, Aux2, Ln1, Ln2, Ph1, Ph2, Line in, Phone out.	Use with T8635L Communicating Thermostat, W8635A or W8635B Equipment Interface Module. Use the W8703A Damper interface Module for zoning systems. Use the C7835A Discharge Temperature Sensor for system diagnostics.

INSTALLATION

When installing this product…

1. Read these instructions carefully. Failure to follow these instructions can damage the product or cause a hazardous condition
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to check out the product operation.

⚠ **CAUTION**
Electrical Shock Hazard.
Can cause personal injury and equipment damage.
Disconnect power before beginning installation.

Location

Locate the W8735B in the equipment room near the HVAC equipment and where access to the main telephone line is available. See Fig.1.
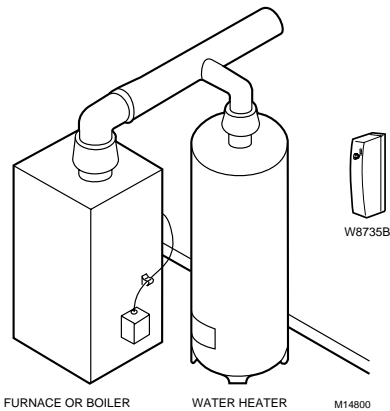
FURNACE OR BOILER   WATER HEATER   M14800

Fig. 1. Locating W8735B in equipment room.

Mounting W8735B Telephone Access Module

⚠ **CAUTION**

Equipment Mounting Damage Hazard.
Can damage W8735B when mounted inside
HVAC equipment.
Mount W8735B outside of any HVAC equipment, where access to main telephone line is available.

1. Unsnap the front cover from the W8735B by grasping the tabs near the top of the module. See Fig. 2.
2. Swing the front cover down and lift it slightly to disengage the hinges.
3. Remove the cover and set aside.
4. Remove the subbase by slowly pulling the subbase from the module housing. See Fig. 3.
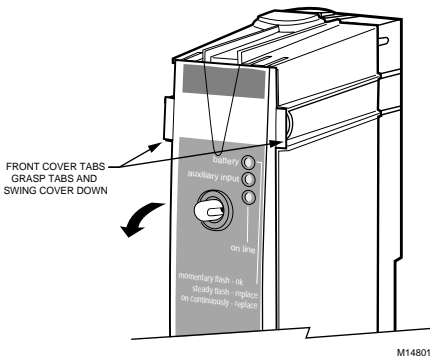5. Locate the two mounting holes on the subbase. See Fig 4.

FRONT COVER TABS
GRASP TABS AND
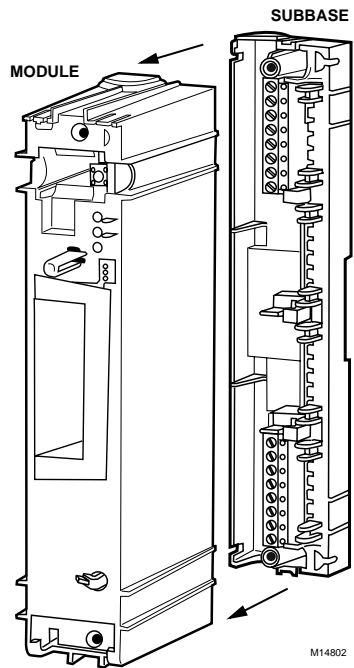SWING COVER DOWN

battery
auxiliary input

on line

momentary flash - ok
steady flash - replace
on continuously - replace

M14801

Fig. 2. Removing front cover.

6. Position the subbase on the wall. Level the W8735B for appearance only; the device functions properly even when not level. Use a pencil to mark the position of the mounting holes on the wall.

NOTE: The wiring for the W8735B can be fed through the back of the subbase or through the knockouts at the top and bottom of the subbase. If using the knockouts, skip steps 7 and 8 and proceed to step 9.

7. Mark the center of one or both wiring holes located in the back of the subbase.
8. Drill a 5/8 or 3/4 in. hole, where marked, for inserting the wires.
9. Remove the W8735B from the wall and drill 3/16 in. holes in the wall (if drywall) where marked. For firmer materials such as plaster or wood, drill 7/32 in. holes. Gently tap the anchors, provided, into the holes until flush with the wall.
10. Reposition the W8735B over the holes.
11. Loosely insert the screws into the holes and tighten the screws.

SUBBASE

MODULE

M14802

Fig. 3. Removing subbase from module housing.
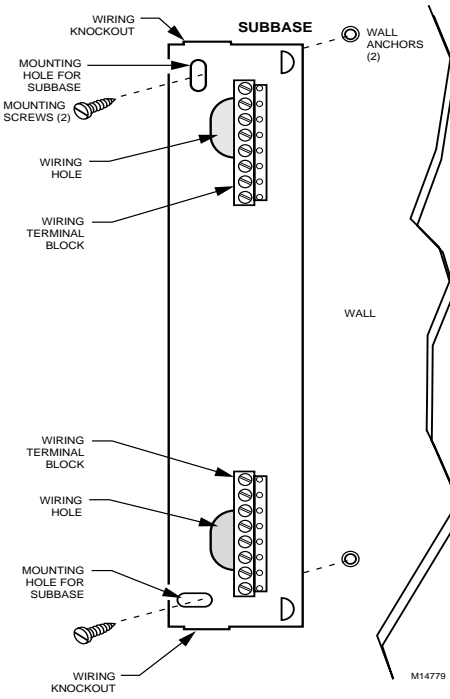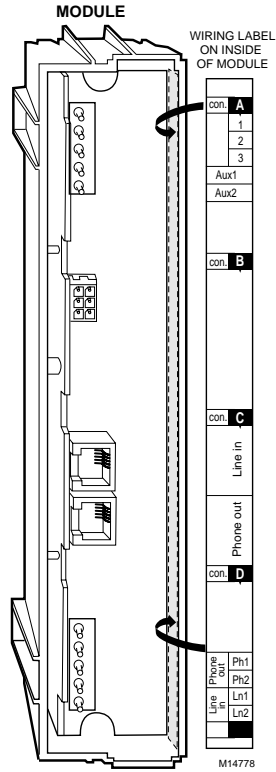
Fig. 4. Mounting W8735B subbase.

Fig. 5. Locating the wiring label inside the module.

WIRING

⚠ CAUTION

Electrical Shock Hazard.
Can cause personal injury and equipment damage.
Disconnect power before beginning installation.

1. Locate the wiring label inside the telephone access module. See Fig. 5.
2. Loosen the terminal screws on the W8735B and connect the system wires. See Fig. 6 through 9 and Table 2.
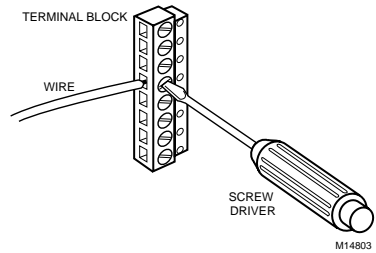3. Securely tighten each terminal screw.

Fig. 6. Connecting wires to terminals.

Wiring the Communications Bus

Connect terminals 1, 2, and 3 from the Telephone Access Module to the other network devices. See Fig. 7.

Wiring the Auxiliary Input

Connect Aux1 and Aux2 terminals to an optional normally open sensor contact, not included; see Fig. 7.

Wiring the Telephone

⚠ CAUTION

**Incorrect Telephone Line Hookup Hazard.
Inability to call out can result in personal
injury or property damage.
Improper installation can result in blocked
phone lines and inability to make 911 and
other emergency-reporting phone calls.**
Always connect the Telephone Access Module
first in line. When a monitored security system is
installed, connect the Telephone Access Module
second in line.
Observing this practice ensures that Telephone
Access Module drops off the line to allow priority
to the house telephone.

1. Wire the telephone line from the telephone com-
   pany to the Line in connections on the Telephone
   Access Module.

IMPORTANT:

> *Wiring the Telephone Access Module first in line
> (or second in line with a monitored security sys-
> tem) ensures that when any house telephone is
> used (such as for an emergency), the Tele-
> phone Access Module drops off the line and
> gives control priority to the house telephone.*

2. Wire the house telephones to the Phone out con-
   nections (see Table 2) on the Telephone Access
   Module.
3. After the Telephone Access Module installation is
   complete, be sure to verify that the emergency
   telephone line disconnect is operating correctly.
   a. Call the Telephone Access Module using an
      outside line (installers use a cell phone).
   b. While calling into the Telephone Access Mod-
      ule, pick up a house telephone receiver. If you
      get a dial tone after a few seconds and the
      Telephone Access Module drops control of the
      line, the Telephone Access Module is installed
      correctly.
   c. If you do not get a dial tone on the house tele-
      phone, follow the wiring diagrams and rewire
      the telephone connections. See Fig. 8 and 9.

IMPORTANT:

> *Do not leave the installation until the emergency
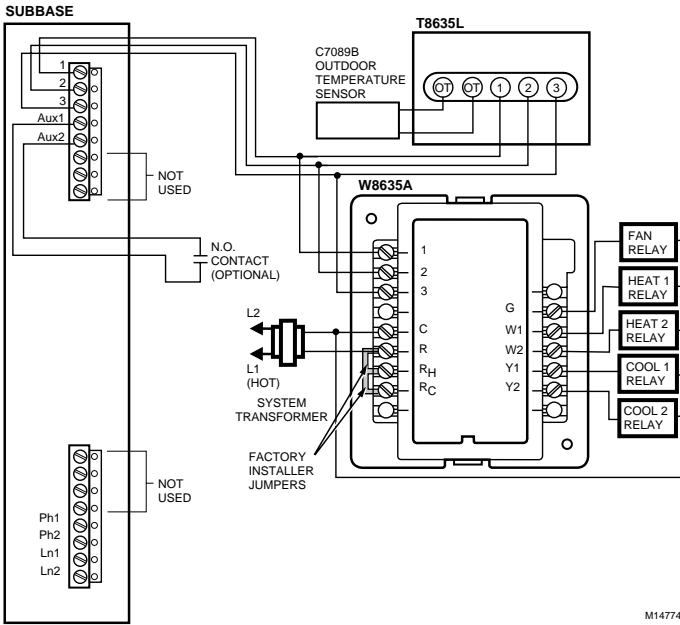> telephone line disconnect is operating correctly.*

Table 2. Terminal Designations.

W8735B Terminal Designations	Function
1	To EnviraCom network terminal 1 (data).
2	To EnviraCom network terminal 2 (24 Vac).
3	To EnviraCom network terminal 3 (24 Vac).
Aux1	Auxiliary Input – Connect to N.O. sensor contact.
Aux2	Auxiliary Input – Connect to N.O. sensor contact.
Line in[a]	RJ11 connector – Connect to telephone line.
Phone out[b]	RJ11 connector – Connect to home telephones
Ln1	Line in - Connect to telephone line.
Ln2	Line in - Connect to telephone line.
Ph1	Phone out - Connect to home telephones.
Ph2	Phone out - Connect to home telephones.

[a]Connect to *either* Line in or use terminals Ln1 and Ln2.
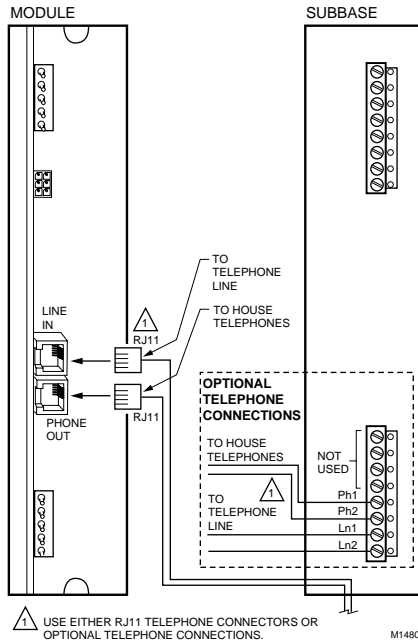[b]Connect to *either* Phone out or use terminals Ph1 and Ph2.

Wiring Diagrams
See Fig. 7 through 9 for wiring diagrams.

Fig. 7. Wiring the communications bus and auxiliary input.

Fig. 8. Telephone installation wiring.

MODULE   SUBBASE

LINE
IN △1

PHONE
OUT

TO HOUSE
TELEPHONES

△1

NOT
USED
Ph 1
Ph 2
Ln 1
Ln 2

SECURITY SYSTEM
PANEL

TO
SECURITY
SYSTEM
TELEPHONE
OUT

⊢ TO TELEPHONE LINE

△1 USE EITHER RJ11 TELEPHONE CONNECTORS OR OPTIONAL
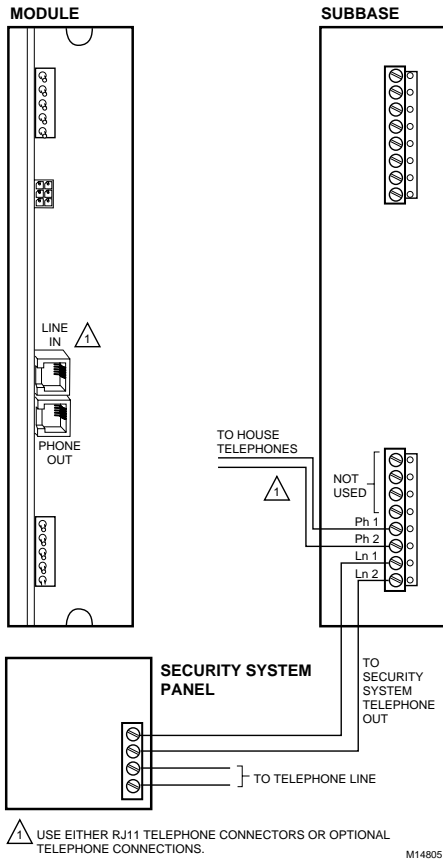TELEPHONE CONNECTIONS.

M14805

**Fig. 9. Telephone installation wiring including
monitored security system.**

Installing W8735B Module Housing Onto Subbase

After subbase is mounted and wiring complete, install the module housing onto the subbase:

1. Align the subbase and the module housing and press together; see Fig. 10.
2. Insert the 2 ¾ in. screws (provided) into the holes.
3. Tighten screws; be careful not to over tighten.

4. Connect and insert 9 Vdc alkaline battery.

NOTE: 9 Vdc alkaline battery is optional; however, when the battery is installed in the W8735B, the power outage alert option is available.

5. Replace the cover. See Fig. 11.
6. Insert the module cover latch pin; see Fig 12.
7. Apply power to the system.

IMPORTANT

> *The Telephone Access Module does not answer within the first 90 seconds after applying power or anytime power is disconnected.*

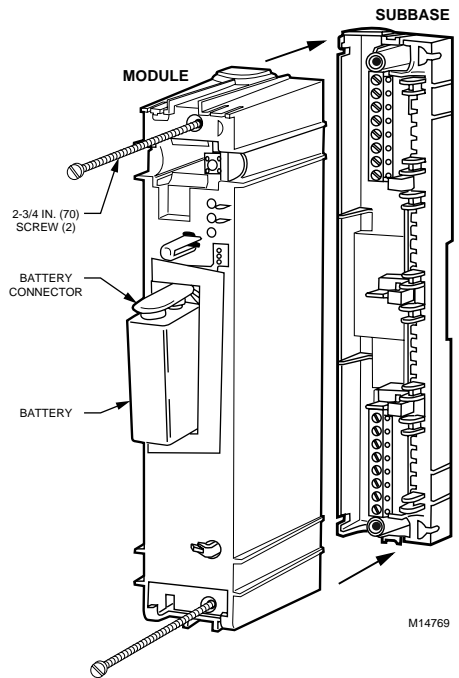8. Do not attempt to dial in to the Telephone Access Module for the first 90 seconds after applying power to allow the Telephone Access Module time to generate its user menu.

SUBBASE

MODULE

2-3/4 IN. (70)
SCREW (2)

BATTERY
CONNECTOR

BATTERY

M14769

Fig. 10. Installing module onto subbase.

COMMUNICATION LED

PASS CODE
RESET BUTTON

STATUS LEDs

SWING UP
TO LATCH

BATTERY

COVER

HOOK IN BOTTOM

M14770
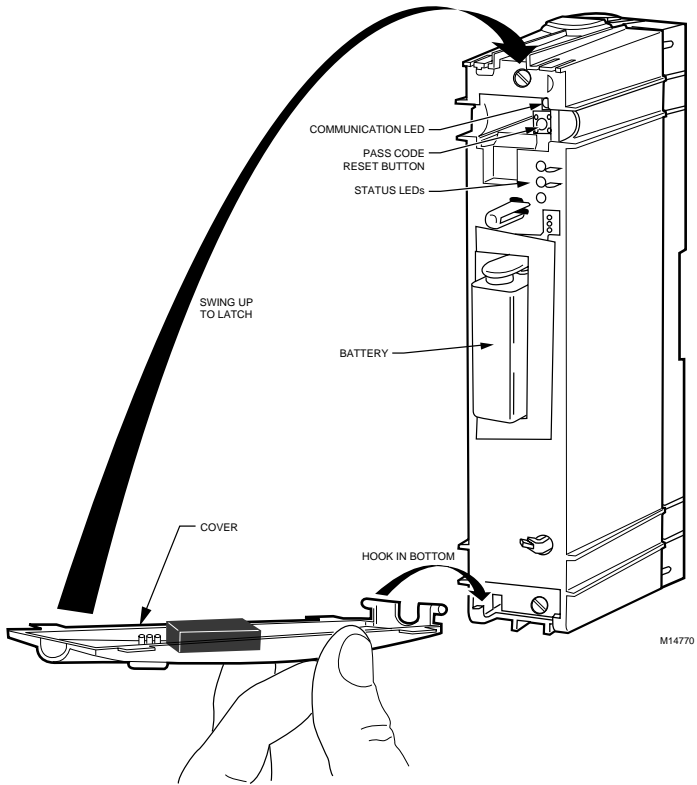
Fig. 11. Replacing module cover.

Fig. 12. Inserting module cover latch pin.

Installer Setup

IMPORTANT
Discuss with the homeowner if you, the HVAC contractor, are providing a monitoring service. When you have agreed, install telephone number setting three according to Configuration No. 9 setting in Table 3.
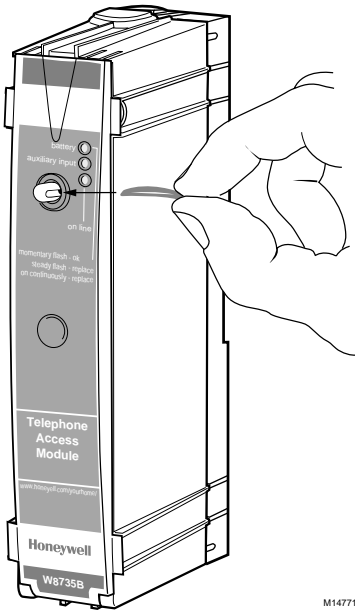
To enter the configuration menu, see Table 3, call into the Telephone Access Module using an outside line (typically an installer would use a cellular telephone):

1. Enter the default four-digit pass code of 1 2 3 4 followed by the # key on the telephone.
2. Enter 99 to access the configuration menu.

NOTE: Set up the Telephone Access Module ID number, pass code, zone ID names and other settings as described in steps 3 and 4. Use Table 4 when setting up Configuration No. 6 in the Configuration Menu (choosing Zone ID names) in Table 3.

3. Enter the configuration number, see Table 3, followed by the # key.
4. To return to the configuration menu press the * key; to exit the configuration menu, press the * key again.

Checkout

1. Call into the Telephone Access Module using any outside line (typically an installer would use a cellular telephone).
2. Enter the pass code.
3. Use the Telephone Access Module User Menu to:
   a. Change the system mode.
   b. Raise and lower the temperature.
   c. Verify that the changes are made at the thermostat.
   d. If zoning is installed, repeat steps a. through c. for each zone.

IMPORTANT
Be sure to explain the dialout alert messages and possible causes (Table 5) to the homeowner.

   e. Review the Owner's Guide with the homeowner and leave all the literature with them.

Table 3. Configuration Menu.

Configuration No.	Description	Settings
1	Identification (ID) Number. When the W8735B dials out, it uses this number to identify who is calling. (This number can be used to reference a data base of customers when setting up a monitoring application.) The ID must be programmed for the dial-out function.	Any combination of digits up to 25 digits in length. This number is typically set to the telephone number where the W8735B is installed, such as the homeowner's home telephone number.
2	Low Limit Setting. When the temperature at the thermostat is less than this setting, the W8735B initiates a dial-out call. If more than one thermostat is used in a system, it uses the lowest value.	40°F(4°C) to 65°F (18°C) in 1°F (1°C) increments. The factory default setting is 50°F (10°C).
3	High Limit Setting. When the temperature at the thermostat is greater than this setting, the W8735B initiates a dial-out call. When more than one thermostat is used in a system, it uses the highest value.	70°F (21°C) to 110°F(43°C) in 1°F (1°C) increments. Factory default setting is 100°F (38°C).
4	Ring Setting. This setting determines how many rings occur before the W8735B picks up the line.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10. (Factory default is two rings.)

Table 3. Configuration Menu. (Continued)

Configuration No.	Description	Settings
5	Pass Code. This setting provides secure access for the homeowner's comfort settings. (Installer: Have the homeowner enter this setting either at the time of installation or at their convenience.)	Any combination of four digits. (Default pass code is 1234.)
6	Zone ID Names (if zoning installed). When more than one thermostat is installed in a system, a name can be assigned to each zone thermostat.	Choose from a list of 26 zone names. (See Table 4.)
7	Filter Change Setting (enable/disable). The W8735B can initiate a dial-out alert when the HVAC equipment filter needs replacing. (If not desired, set the value to disable.)	Enable or disable. (Enable is the default.)
8	Dial-out Alert Setting (enable/disable). The W8735B can dial out on an alert condition. See Table 5. (If not desired, set the value to disable.)	Enable or disable. (Enable is the default.)
9	Dial-out Telephone Number Settings. W8735B can store up to three telephone numbers to dial out[a]: • Telephone number setting one: The homeowner selects a number where they can be contacted when away from home (such as office, second home, or cellular phone number). • Telephone number setting two: An alternate contact when the homeowner cannot be reached (such as relative, friend or neighbor). • Telephone number setting three (HVAC contractor is providing monitoring service at homeowner's request): The HVAC contractor phone number. ***IMPORTANT*** *If these numbers are not programmed, a dial-out is not initiated on alert. Telephone setting numbers one and two are for the homeowner.*	Up to three telephone numbers can be programmed. (Each telephone number can be any combination of 25 digits.)
10	Power Outage Setting, The W8735B can monitor if the power is interrupted (when a 9 Vdc alkaline battery is installed). When power is interrupted continuously for longer or equal to the power outage setting, the W8735B initiates a dial-out alert.	1, 2, 3 or 4 hours. (Factory default is 1 hour.)
11	Software Version Number. Identifies version of software in Telephone Access Module.	None

[a]The W8735B prompts for setting the dial-out telephone number type as data or voice; choose voice because data is reserved for future applications.

Table 4. Zone IDs.

Zone ID No.	Zone Name
1	Basement
2	Bathroom
3	Bedroom
4	Den
5	Dining Room
6	Foyer
7	Game Room
8	Great Room
9	Guest Room
10	Gym
11	Kid's Bedroom
12	Kitchen
13	Library
14	Lower Level
15	Master Bedroom
16	Media Room
17	Nursery
18	Office
19	Pool Room
20	Porch
21	Spa
22	Sunroom
23	Theater
24	Upper Level
25	Wine Cellar
26	Workshop

Receiving and Acknowledging an Alert Message

The W8735B dials out until someone answering the telephone (at the dial-out telephone number setting locations described in Configuration No. 9 in Table 3) acknowledges the alert message.

The message is acknowledged by pressing 1 on the telephone keypad. If there is no acknowledgement, the W8735B continues to dial the first two telephone numbers in sequence every 30 minutes until an acknowledgement is received.

The third telephone number setting is designed to enable the HVAC contractor to provide a monitoring service at the homeowner's request. If a telephone number was programmed into the third telephone location, the W8735B also dials the third number and continues until the HVAC contractor acknowledges the alert.

NOTE: The W8735B considers telephone number set-
tings one and two independently from telephone
number setting three. Even when the recipient
at telephone number setting one or two
acknowledges the alert, it dials out and attempts
to receive an acknowledgement from the recipi-
ent at telephone number three, and vice-versa.

When the homeowner dials in and is informed that an alert is active, the alert can be acknowledged immediately to stop the calls to telephone numbers settings one and two but not to telephone number setting three.

IMPORTANT
> *Only the HVAC contractor can acknowledge the alert dialed to telephone number setting three.*

The HVAC contractor dials in to cancel the active alert messages to telephone number setting three by:
- Calling the home,
- Entering the last five digits of the telephone number setting three as the pass code; for example, if the telephone number is 555-1234, entering 5 1 2 3 4 as the pass code, and
- Following the menu to clear the alerts. (Using this pass code allows only the HVAC dealer to cancel the dial-out alert messages to telephone number setting three.)

Sending an Alert Message

The W8735B can initiate a dial-out sequence from the conditions in Table 5.

Table 5. Dial-out Sequence Conditions.

Alert Messages	Possible Causes
High Temperature	The room temperature exceeded the high limit temperature setting programmed in the W8735B.
Low Temperature	The room temperature exceeded the low limit temperature setting programmed in the W8735B.
Heat Pump[a]	A heat pump compressor fault occurred.
Heating System[b]	The system heat output is below the acceptable performance; possible heating system failure.
Cooling System[b]	The system cool output is below the acceptable performance; possible cooling system failure.
Auxiliary Input[c]	The auxiliary sensor connected to the auxiliary input terminals has tripped.
Filter Change	The thermostat is indicating a filter change is required for the heating/cooling system.
Power Outage	A power outage exceeded the maximum allowable time.

[a]When a W8635B Equipment Interface Module is installed and L terminal is correctly used.

[b] W7835A Discharge Temperature Sensor is required.

[c]Normally open (N.O.) sensor contact is required. Keep the wire length between sensor and W8735B as short as possible and ensure wire is not subjected to any electrical interference.

TROUBLESHOOTING GUIDE

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Symptom	Possible Cause	Solution
Battery indicator is on continuously.	Battery is either dead or not installed.	Install or replace battery.
Battery indicator is flashing with a steady on-off pulse.	Battery is weak.	Replace battery.
Battery indicator appears to flash momentarily every ten seconds.	Battery is good.	No action required.
Telephone Access Module does not answer.	• Power is not connected or 90-second delay is in effect. • Phone line is not connected. • Telephone line is out of order.	• Wait 90 seconds and try again. • Connect telephone line. • Contact telephone company.
On line indicator is illuminated.	Telephone module is in dial-in or dial--out sequence.	Wait for the call to end.
Auxiliary input indicator is illuminated.	W8735B detected a contact closure on auxiliary input terminals.	Determine cause of contact closure. Remedy problem according to contact manufacturer instructions.
W8735B indicates, "The system is not responding."	W8735B is not receiving information from the thermostats.	Make sure all connections between communicating devices are good.
Password cannot access the Telephone Access Module.	Incorrect pass code entered.	Press and hold the pass code reset switch for five seconds. The pass code is reset to 1-2-3-4. Retry with the default pass code. See Fig. 11.

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